Improving the VTE Patient Journey

A discussion on the value of multidisciplinary and shared decision-making, navigating challenges and ensuring continuity of care, and the importance of standardized follow-up after a venous thromboembolism diagnosis.

With James M. Horowitz, MD, FAHA, FACC, FCCP, FCCM

When a patient first receives a venous thromboembolism (VTE) diagnosis, what are their biggest concerns and questions?

What I've heard from patients again and again is "Am I going to die?" or "Will this happen again?" Although this is a common diagnosis for us to make and treat, it is life-altering for our patients and many have never even heard of the disease, as pulmonary embolism (PE) lags behind myocardial infarction (MI) and stroke in awareness. We had a great conversation in 2025 with a patient named Melissa Korn (Deputy Bureau Chief at *The Wall Street Journal*) about her experience with a PE after spinal surgery as part of the PERTCast (PERT Consortium podcast series) that really highlights this.[1]

What barriers most commonly delay appropriate escalation, intervention, or follow-up for VTE patients?

Even as we've seen the number of PE interventions explode over the past 15 years, we have lacked clear guidelines for intervention, especially in the intermediate-high–risk PE patient population. With the recent American Heart Association/American College of Cardiology guidelines and a new categorization schema,[2] we're a bit closer to what we need, especially with the subgroups of categories C and D (including normotensive shock). However, we still need to further enrich our risk stratification, perhaps with echocardiographic parameters such as velocity-time integral or scores like the CPES (Composite PE Shock) score, to really improve time to escalation and intervention. I'm looking forward to the European Society of Cardiology's next round of guidelines.

Where does coordinated VTE care have the greatest impact on patient outcomes, and where do gaps in multidisciplinary coordination still create challenges?

We talk a lot about the percutaneous interventions for PE, but there are increasing data demonstrating that having a coordinated PE response team (PERT) that focuses on "fundamentals" can have a large impact on patient outcomes. One of my favorite examples from the past is improvement in time to therapeutic anticoagulation after creation of a PERT. That's why I'm so glad the new guidelines recommend use of a PERT (category C-E) and use of low-molecular-weight heparin over unfractionated heparin (categories C1-E1).[2]

What conversations are most important when discussing risks and benefits and navigating shared decision-making around treatment options?

Despite the large number of recent trials, both randomized and otherwise, the risks and benefits are still not entirely clear cut for most intermediate-high–risk/category C3 to D2 patients, especially related to interventions. Thus, shared decision-making among the PERT and the patient and family are very important. The decisions need to be extremely personalized given the broad spectrum of patients we treat, especially

given extremes of age and comorbidities, including cancer and debility.

How do you approach continuity of care and "ownership" after a VTE patient is discharged? How does this differ between deep vein thrombosis (DVT) and PE?

Our center has a robust PERT follow-up clinic run by Dr. Eric Bondarsky, a pulmonologist, who then consults other specialties if long-term issues arise. One of the potential challenges is that, either in the transition from the intensive care unit (ICU) to the inpatient floor or if a patient never requires an ICU stay, the patient may not get the proper referral to the clinic. To alleviate this, we have established an email distribution list that contacts core members of our PERT. Any provider on any service can simply email the distribution list alias with the patient's information to ensure adequate follow-up is established. For many centers, the pathway for DVT follow-up is different and flows through to interventional radiology or vascular surgery, but in an ideal world, this would be one cohesive VTE clinic.

What needs to improve in terms of communication, follow-up, and patient education after discharge?

The growth of PERT follow-up clinics over the past decade has been a huge advancement in PE care. However, optimization of the clinics still has a long way to go—ideally, these clinics would be multispecialty (just as PERTs are) and would standardize follow-up care, including measures of quality of life and 6-minute walk testing, follow-up imaging, and screening for chronic thromboembolic pulmonary hypertension/chronic thromboembolic disease. This is an area where The PERT Consortium can continue to lead the way!

Even if your center does not currently have an "official" PE clinic, there are simple ways to improve follow-up care, such as trying to find one or two attendings who are willing to follow up some of the sicker patients or working with your institution to develop some meaningful follow-up education. The PERT Consortium also offers "off-the-shelf" patient education resources at https://pertconsortium.org/transitions-of-care.

If you could change one thing about the VTE patient journey today, what would it be?

Over the past 14 years since helping start our first PERT at Weill Cornell, I've seen an amazing expansion of the field, including numerous interventions, explosive growth of the PERT movement, and (finally) a lot of randomized controlled trials. I'm hopeful that within the next decade we can define a "STEMI equivalent" for the intermediate-high–risk category so that we can give the patients the same clear guidance and definitive treatment we provide when they present with an MI. ■

1. PERTcast: The Pulmonary Embolism Discussion Podcast. Patient profile: Melissa Korn. December 11, 2025. Accessed June 24, 2026. https://pertcast.libsyn.com/patient-profile-melissa-korn
2. Writing Committee Members; Creager MA, Barnes GD, Giri J, et al. 2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN guidelines for the evaluation and management of acute pulmonary embolism in adults: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation. 2026;153:e977–e1051. doi: 10.1161/CIR.0000000000001415

James M. Horowitz, MD, FAHA, FACC, FCCP, FCCM
Associate Professor of Medicine
Director, Critical Care Cardiology Section
Medical Director, Cardiac ICU
Assistant Chief of Service, Division of Cardiology
NYU Langone Health
New York, New York
james.horowitz@nyulangone.org
Disclosures: Clinical trial investigator for Inari Medical, Penumbra, Inc., Inquis Medical, and Akura.